

4304 ATN9 Double row deep groove ball bearing



Double row deep groove ball bearing

Double row deep groove ball bearings correspond, in their design and operation, to a pair of single row deep groove ball bearings. They are robust in operation, requiring little maintenance, can operate at high speeds and accommodate radial and axial loads in both directions. They are slightly wider than single row bearings of the same bore and outside diameter but have a considerably higher load carrying capacity.

- Versatile and robust design
- High-speed capability
- Accommodate high axial and radial loads in both directions
- Require little maintenance

Overview

Dimensions

Bore diameter	20 mm
Outside diameter	52 mm
Width	21 mm

Performance

Basic dynamic load rating	23.4 kN
Basic static load rating	16 kN
Reference speed	22 000 r/min
Limiting speed	12 000 r/min

Properties

Filling slots	Without
Number of rows	2
Locating feature, bearing outer ring	None
Bore type	Cylindrical
Cage	Non-metallic
Matched arrangement	No
Radial internal clearance	CN
Tolerance class	Normal
Material, bearing	Bearing steel
Coating	Without
Sealing	Without
Lubricant	None
Relubrication feature	Without

Technical Specification

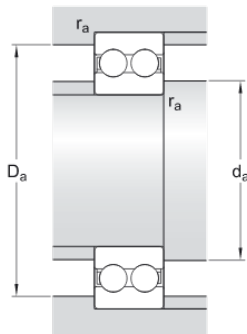


Dimensions

d	20 mm	Bore diameter
D	52 mm	Outside diameter
B	21 mm	Width
d_1	≈ 31.8 mm	Shoulder diameter
D_1	≈ 42.2 mm	Shoulder diameter
$r_{1,2}$	min. 1.1 mm	Chamfer dimension

Abutment dimensions

d_a	min. 27 mm	Diameter of shaft abutment
D_a	max. 45 mm	Diameter of housing abutment
r_a	max. 1 mm	Radius of shaft or housing fillet



Calculation data

Basic dynamic load rating	C	23.4 kN
Basic static load rating	C_0	16 kN
Fatigue load limit	P_u	0.68 kN
Reference speed		22 000 r/min
Limiting speed		12 000 r/min
Minimum load factor	k_r	0.06
Calculation factor	f_0	13.1

Mass

Mass bearing	0.21 kg
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Tolerance class

Dimensional tolerances	Normal
Radial run-out	Normal

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